

### 2.2.3.3 Northwest Sands Ecological Landscape

#### General Description

The Northwest Sands Ecological Landscape (Figure 2-9) is a large glacial outwash system consisting of two major landforms: flat plains or terraces along glacial meltwater channels, and pitted or "collapsed" outwash plains containing kettle lakes. Soils are deep sands, low in organic material and nutrients.

#### Vegetation

Historic vegetation at the time of the General Land Office survey was dominantly jack pine and scrub oak forest and barrens. White and red pine forests were also a sizable component of the Ecological Landscape. Numerous barrens occurred in the southwest half of the Ecological Landscape, and a few large barrens within the northeast half. Most of the trees in the barrens were jack pine, but oak savannas also occurred in the south central part of the Ecological Landscape.

Current vegetation is a mix of forest, agriculture, and grassland with some wetlands in the river valleys. Pine, aspen-birch, and oak equally (27% each) dominate the forested area of the Ecological Landscape (Figure 2-10). The maple-basswood, spruce-fir, and lowland hardwood forest type groups occupy small percentages of the Ecological Landscape. Within the open lands, there is a relatively large proportion of grassland and shrubland, a small but locally significant amount of emergent/wet meadow and open water, and very little row-crop agriculture.

#### Hydrologic Features

Several hundred kettle lakes are found in the pitted outwash plain. The headwaters of the St. Croix-Namekagon and Brule River systems are located here among flat plains, sedge meadows, bog complexes, and major barrens. The overall pollution levels of watersheds, streams, and lakes that have been ranked (6 out of 23) in the Northwest Sands Ecological Landscape are about average according to Wisconsin DNR. Groundwater conditions are among the least polluted and most vulnerable in the state for the 16 watersheds that have been ranked.

#### Land Use

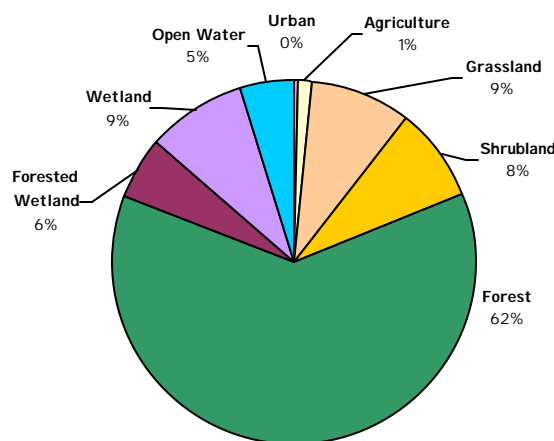
The total land area of the Northwest Sands Ecological Landscape is approximately 1.2 million acres, of which 64% is classified as timberland. Of timberland within the Ecological Landscape, 49% is under public ownership, while 41% is owned by non-industrial, private landowners. The largest public landowners are the counties and municipalities (21%), followed by federal (12%) and state (5%) governments (Figure 2-11).

#### Socioeconomics

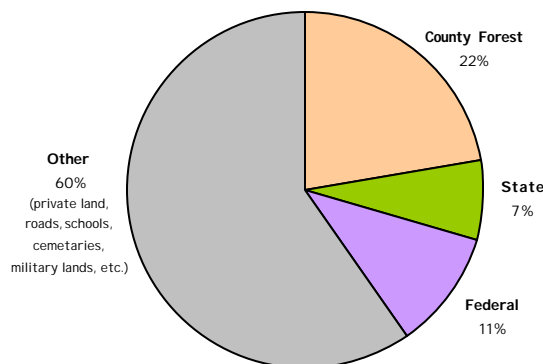
Socioeconomic data are summarized based on county-level approximations of the Ecological Landscape (referred to as a "region").



**Figure 2-9. Northwest Sands Ecological Landscape.**



**Figure 2-10. Current land cover in the Northwest Sands Ecological Landscape.**



**Figure 2-11. Public land ownership in the Northwest Sands Ecological Landscape.**

Economic data are available only on a political unit basis with counties as the smallest unit. The counties included in this socioeconomic region are Bayfield, Burnett, Douglas, and Washburn ("Northwest Sands Region").

The Northwest Sands Region has a relatively low population density and an aging population. The population density of the region (20 persons/mi<sup>2</sup>) is about one-fifth that of the state as a whole (96 persons/mi<sup>2</sup>). It has the second lowest percentage of young people (less than 20 years old), the third highest proportion of elderly (over 65 year old) people, and the second highest median age among the regions of the state. Overall, the percentage of minorities is below average, with the exception of the Native American population.

Economically, the counties of the Northwest Sands are somewhat depressed when compared with the rest of the state. Per capita income and average wage are third lowest and the rates of poverty and unemployment are third and fifth highest, respectively, among the regions. The retail, service, and government sectors are important employers in the region, though the facilities are located outside the Ecological Landscape in Superior.

Hay production is relatively important in the region's agricultural sector. Forest products and dollar value of the processing industries are relatively small, comprising only 5% of the total regional dollar value of industrial output. Agriculture land sold and diverted to other uses resulted in a slightly higher percentage of agricultural land loss in the region than in the state as a whole.

#### Management Opportunities

- There is ample opportunity for increasing the extent of dry jack pine-northern pin oak forest and white and red pine restoration.
- Large-scale restoration of oak-pine barrens and wetlands (sedge meadows, marshes, and bogs) would benefit many rare birds, herptiles, plants, butterflies and moths, and many other invertebrates found in the Ecological Landscape.
- Other species deserving special management in this Ecological Landscape include wolves and grassland/shrubland birds.
- Maintenance and restoration of St. Croix, Brule (cedar swamp and spring management), and Namekagon river systems, kettle lakes, wild rice lakes, streams, springs or spring creeks, and conifer swamps present additional ecological management opportunities.

#### Natural Communities

The following table (Table 2-5) lists the natural communities occurring in the Northwest Sands arranged by the level of opportunity to sustain and manage the community type in this Ecological Landscape. For further explanation of natural communities and opportunities to sustain them, see Section 3.3.

**Table 2-5. Natural communities occurring in the Northwest Sands arranged by the level of opportunity to sustain and manage the natural community type in this Ecological Landscape.**

Major Opportunity	Important Opportunity	Present
Northern Dry Forest	Northern Hardwood Swamp	Northern Mesic Forest
Northern Dry-Mesic Forest	Northern Wet-Mesic Forest	Floodplain Forest
Northern Wet Forest	Alder Thicket	Submergent Aquatic-Oligotrophic Marsh
Pine Barrens		Shrub Carr
Emergent Aquatic		
Emergent Aquatic-Wild Rice		
Submergent Aquatic		
Northern Sedge Meadow		
Open Bog		
Inland Beach		